

REMARKS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

After entry of the foregoing amendment, Claims 1-45 are pending in the present application. Claims 1, 7, 11, 13, 22, 32, 33, 36, and 37 are amended without introduction of new matter by the present amendment.

Independent Claims 1, 7, 11, 22, 32, 33, 36, and 37 are amended to clarify the manner in which a "vacuum state" is achieved by the claimed invention; and amended to place the claims in better form for allowance or appeal. Applicants submit that the foregoing amendment will not require any additional searching or consideration by the Examiner and do not present new matter or issues. Thus, Applicants respectfully request that the Examiner enter the Amendment.

In the outstanding Office Action, Claims 1-6, 11, 22, and 36 were rejected under 35 U.S.C. § 112, first paragraph; Claims 1-6, 11-12, 22-23, 25-29, 36-43 were rejected under 35 U.S.C. § 102(b) as anticipated by Mak et al. (hereinafter "Mak"); Claims 7-10, 13, 20, 37, 44, and 45 were rejected under § 102(b) as anticipated by Fochtman et al. (hereinafter "Fochtman"); Claims 1-3, 6, 11-12, 22, 32-33, and 36 were rejected under § 102(b) as anticipated by Hardison et al. (hereinafter "Hardison"); Claims 13-19, 21, 23-29, and 31 were rejected under 35 U.S.C. § 103(a) as unpatentable over Veltmann in view of Mak et al.; Claims 32-33 were rejected under § 103(a) as unpatentable over Mak in view of Veltmann; Claim 45 was rejected under § 103(a) as unpatentable over Fochtman in view of Rickhard; Claim 30 was indicated as allowable if rewritten in independent form; and Claims 34 and 35 were allowed.

Applicants thank Examiner Rinehart for the allowance of Claims 34 and 35 and the indication of allowable subject matter as to objected Claim 30. Further, Applicants and their

representatives thank Examiner Rinehart for the courtesy of the interview conducted on May 20, 2004. During the interview, differences between the claimed invention and the applied references were discussed. No agreement was reached. However, Examiner Rinehart did acknowledge that the meaning of “vacuum pump” and providing a vacuum state using a vacuum pump would be understood by the artisan as not being reasonably readable on the Mak, Fochtman, and Hardison teachings discussed in detail below.

Addressing now the rejection of Claims 1-6, 11, 22, and 36 under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement, that rejection is respectfully traversed. The Office Action asserts that a “vacuum state”, as set forth in those claims, is not described in the specification in such a way as to enable one skilled in the art to make and use the claimed invention. In that regard, Applicants note the specification discloses the thermal decomposition of an object within a furnace maintained at a “predetermined degree of vacuum”.¹ Further, at least the first embodiment of the present application describes a “vacuum system” that achieves a “predetermined degree of vacuum” (e.g., less than 10^{-3} Torr).² Accordingly, Applicants respectfully request that the rejection of Claims 1-6, 11, 22, and 36, under 35 U.S.C. § 112, first paragraph, be withdrawn.

Addressing now the rejection of the remaining claims, summarized above, those rejections are respectfully traversed.

Amended Claim 1 is directed to a soil producing method for producing second soil containing organic halides with a second concentration lower than a first concentration from first soil containing the organic halides with the first concentration. The method includes:

introducing the first soil to a hermetic zone;

pumping out the hermetic zone *using at least a vacuum pump* to a vacuum state; and

¹ Specification, page 10, lines 9-16.

² Specification, page 32, line 8 – page 46, line 4.

thermally decomposing at least a part of the organic halides by heating the first soil in the hermetic zone under the vacuum state.

Amended independent Claims 7, 11, 22, 32, 33, 36, 37 similarly recite pumping to a vacuum state using at least a vacuum pump. Independent Claims 13 and 23 recite means for purging, which can reduce the concentration of organic halides in a chamber by replacing the gas therein or by reducing pressure.³ In other words, the “purging means” is not only capable of replacing gases in the hermetic zone, but can also introduce gases after reducing the pressure in the hermetic zone.⁴ Accordingly, as the purging means can be used for pressure reduction in the hermetic zone, as well as gas substitution,⁵ the purging means includes a vacuum system having various pumps to achieve a predetermined degree of vacuum (e.g., 10^{-3} Torr).⁶

In the rejections under § 102(b) and § 103(a), the outstanding Office Action cites Mak, Fochtman, or Hardison as teaching the claimed feature of either pumping out a hermetic zone to a vacuum state or means for purging the hermetic zone. However, as discussed during the aforementioned interview, these references do not teach the use of a vacuum pump to achieve a vacuum state. Rather, Mak teaches an inlet opening 42 that supplies a purge gas to a kiln 10;⁷ Fochtman teaches a blower 36 and piping 9 that supplies stripping gas (e.g., nitrogen) to a rotary dryer 5;⁸ and Hardison teaches a manifold 72 that supplies a stoichiometric mixture of air and fuel to a furnace.⁹

Accordingly, as none of the above references teaches a vacuum pump or a vacuum system including various pumps to achieve a vacuum state, Applicants respectfully request that the rejection of all claims, summarized above, be withdrawn.

³ Specification, page 20, lines 5-14.

⁴ Specification, page 22, lines 6-8.

⁵ Specification, page 22, lines 8-9.

⁶ Specification, page 32, line 8 – page 34, line 19.

⁷ Mak, col. 5, lines 26-41.

⁸ Fochtman, col. 15, line 55 – col. 16, line 21.

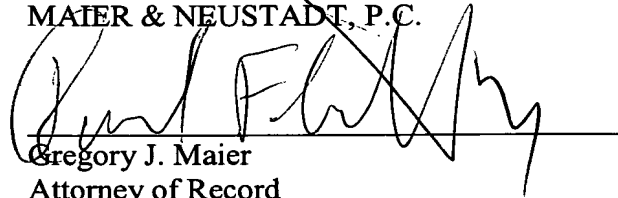
⁹ Hardison, col. 12, lines 47-69.

If the above arguments are not found persuasive, Applicants respectfully request the Examiner to rebut those arguments by way of an Advisory Action, in order to facilitate the resolution of the outstanding issues on appeal.

Consequently, in light of the above discussion and in view of the present amendment, the present application is believed to be in condition for allowance and an early and favorable action to that effect is respectfully requested.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.

A handwritten signature in black ink, appearing to read 'Gregory J. Maier', is written over a horizontal line.

Gregory J. Maier
Attorney of Record
Registration No. 25,599

Customer Number
22850

Tel: (703) 413-3000
Fax: (703) 413 -2220
(OSMMN 08/03)

Raymond F. Cardillo
Registration No. 40,440

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